# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/919,584 | 07/30/2001 | Peter W.J. Jones | TBRX-P01-001 | 2595 |

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| EXAMINER |
|---|
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| 2672 | |

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

*--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

THE REPLY FILED 22 September 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may <u>only</u> be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

<u>PERIOD FOR REPLY</u> [check either a) or b)]

a) ☒ The period for reply expires <u>3</u> months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on <u>22 September 2004</u>. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

    (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

    (b) ☐ they raise the issue of new matter (see Note below);

    (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

    (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

    NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet</u>.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

    The status of the claim(s) is (or will be) as follows:

    Claim(s) allowed: _____.

    Claim(s) objected to: _____.

    Claim(s) rejected: <u>1-24</u>.
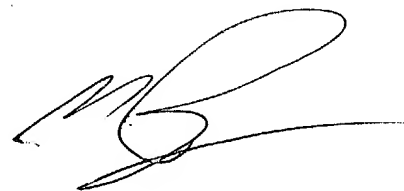
    Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)( PTO-1449) Paper No(s). _____.

10. ☐ Other: _____.

Continuation of 5. does NOT place the application in condition for allowance because:

1) Applicant argues in essence that Young fails to teach or suggest a two-color display of optical elements of a first color and a second color and being arranged in an alternating pattern because Young teaches the use of two opponent color vectors using a total of four colors. In response to applicant's arguments, Young teaches in Fig. 2 an alternating pattern of a B/W color and a O/C color. Young teaches that, with appropriate groupings of patterns and rotations, a first color of B/W and a second color of O/C can be produced because a B/W input pixel can be translated to a white only or black only pixel or a pixel with a color between white and black, and similarly an orange/cyan pixel can be translated to a pixel with an orange, a cyan or a combination of orange with cyan. Note that the first color can also be determined by equation $(Ri+Gi+Bi)/3$, thus generating a color between the black and white. Moreover, when voltage is applied, the system switches between a light transmitting (white) and a light blocking (black) state and the TN cell thus produces either a white or a dark transmitting state for a pixel. Similarly switching the voltage on and off switches the light between cyan and orange for each pixel, thus changing the brightness of the second color for a pixel in the second channel. Therefore, with appropriate application of voltage wherein light polarization can be uniformly applied to a portion of the electronically adjustable pixels of the first channel and the second channel, the alternating pattern with the first channel in the first color and the second channel in second color can be obtained with the alternating pattern of the first color and the second color being generated for pixels of the composite two-channel image. The alternating pattern of a B/W color for a first pixel from the first channel and a O/C color for a second pixel from the second channel for the composite image (Fig. 2). In this manner, at least a portion of the composite image is displayed in a two-color display because pixel colors are controllable such that the pixels are arranged and displayed in the two colors in an alternating pattern. Therefore, Young meets the claim limitation of providing a two color display of optical elements of a first color and a second color and being arranged in an alternating pattern as recited in the claim 1.

2) Applicant further argues that Young is silent regarding the brightness of these hues. However, Young teaches a desired image to be reproduced and separated into two channels of information wherein the B/W color channel representing the overall luminous intensity image of the desired image. The choice of the first color and the second color for the neighboring pixels in the alternating pattern determines the relative brightness of the pixels. Young teaches determining for each pixel of the original image in a full color display, the brightness of a first pixel in the first channel relative to the brightness of a second pixel in a second channel since Young teaches determining the first color $(Ri+Gi+Bi)/3$ associated with the first pixel as opposed to determining the second color $Ri - Bi$ or $aRi+bGi+CBi$ associated with the second pixel of the original image and theby determining the relative brightness of each pixel of the original image in a full color display. Therefore, Young teaches the claim limitation of determining for an image presented on a full color display the relative brightness for points/pixels of the image produced by the full color display.

3) Moreover, Young discloses changing the polarization of light and the proportion of each color depending upon the angle of polarization. The relative brightness can be controlled by changing the polarization of light and/or the filters applied to each pixel and thus Young teaches electronically controlling and translating the relative brightness of the points/pixels presented on a full color display and the relative brightness of the points/pixels presented on a full color display INTO the corresponding brightness for the respective points/pixels on the two-color or two-channel display.

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